

# Notice of Allowability

Application No.

10/784,975

Examiner

Philip H Leung

Applicant(s)

ARNTZ ET AL.

Art Unit

3742

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
  2. ☒ The allowed claim(s) is/are 1-8 and 11-21 (renumbered as, 1-19).
  3. ☒ The drawings filed on 25 February 2004 are accepted by the Examiner.
  4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets" ) must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948 ) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 2-25-2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

6 (Amended). The rapid cook oven as recited in claim 5, wherein [the] a portion of the combined air flow is exhausted through the exhaust air duct.

Claims 11-21 have been renumbered as "claims 9-19" respectively, as follows:

[11] (Amended) 9. A convection fan assembly for use in a convection cooking appliance comprising:

- a housing;
- an oven air passage adapted to receive a flow of oven air into the housing;
- a fresh air passage enabling a flow of fresh air into the housing;
- a mixing chamber adapted to receive each of the flow of oven air and the flow of fresh air;
- a combustion chamber defined in the housing;
- an electric heating element positioned in the combustion chamber;

a recirculation passage adapted to pass a combined oven air flow mixture composed of the flow of oven air and the flow of fresh ambient air from the housing; and

a dual flow fan rotatably mounted in the housing, said dual flow fan including a first portion arranged to draw in the flow of oven air and a second portion arranged to draw in the flow of fresh air, wherein operation of the dual flow fan combines the flow of oven air and the flow of fresh air and directs the combined air flow from the housing through the combustion chamber in which the combined air flow is passed over the heating element.

[12] (Amended). 10. The convection fan assembly as recited in claim [11] 9, wherein the combustion chamber extends annularly about the dual flow fan.

[13] (Amended). 11. The convection fan assembly as recited in claim [12] 10, wherein the electric heating element is constituted by a sheathed electric resistive heating element.

[14] (Amended). 12. The convection fan assembly as recited in claim [13] 11, wherein the electric heating element is a halo element including a plurality of substantially circular coils extending within the combustion chamber.

Art Unit: 3742

[15] (Amended). 13. The convection fan assembly as recited in claim [11] 9, further comprising: an exhaust air duct for exhausting air from the housing.

[16] (Amended). 14. The convection fan assembly as recited in claim [15] 13, wherein [the] a portion of the combined air flow is exhausted through the exhaust air duct.

[17] (Amended). 15. The convection fan assembly as recited in claim [16] 14, wherein the exhaust air duct extends through the combustion chamber.

[18] (Amended). 16. A method of performing an accelerated cooking operation in a rapid cook oven having an oven cavity and a convection cooking system comprising:

placing a food item within the oven cavity;

operating a dual flow fan having a first portion which draws in a flow of oven air having a first temperature from the oven cavity, and a second portion which draw in a flow of fresh air flow having a second temperature;

mixing the flow of oven air and the flow of fresh air in a mixing chamber forming a combined air flow having a temperature less than the first temperature;

directing the combined air flow into a combustion chamber having

Art Unit: 3742

an electric heating element arranged therein;

heating the combined air flow with the electric heating element;

maintaining the combined air flow in the combustion chamber such that contaminants carried by the combined air flow are combusted to create a substantially clean, recirculation air flow; and

directing the recirculation air flow into the oven cavity such that the recirculation air flow is directed upon the food item during the rapid cooking operation.

[19] (Amended). 17. The method of claim [18] 16, further comprising: activating a microwave cooking system to perform at least a portion of the cooking operation.

[20] (Amended). 18. The method of claim [18] 16, further comprising: exhausting a portion of the combined air flow.

[21] (Amended). 19. The method of claim [20] 18, wherein the portion of the combined air flow which is exhausted flows through the combustion chamber.

**Remarks**

The number of each of Claims 11-21 is renumbered as "claims 9-19" respectively, because there were no claims 9 and 10 as filed (37 CFR 1.126). Claims 6 and 16 (now amended as claim 14) are amended to eliminate a redundant article "the".

**Examiner's Statement of Reasons for Allowance**

2. The following is an examiner's statement of reasons for allowance: The claimed convection fan assembly for use in a convection cooking appliance comprising a housing; an oven air passage a fresh air passage, a mixing chamber, a combustion chamber defined in the housing; an electric heating element positioned in the combustion chamber; a recirculation passage and a dual flow fan rotatably mounted in the housing in the arrangement as specifically claimed so that the dual flow fan combines the flow of oven air and the flow of fresh air and directs the combined air flow from the housing through is not shown or fairly suggested by the prior art.

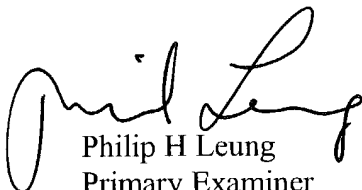
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 3742

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H Leung whose telephone number is (703) 308-1710.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (703) 305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Philip H Leung  
Primary Examiner  
Art Unit 3742

P.Leung/pl  
9-29-2004